

# United Kingdom

## Country Profile

This country profile is part of Foundations at risk, a research programme by Economist Impact that examines the emerging threats affecting data centres globally and evaluates country-level exposure and resilience. [Find out more](#)

## Key insights

**The UK is the leading European data centre market and a crucial infrastructural hub connecting the US and mainland Europe.**

With increasing demand pressure and grid volatility, **the UK is expanding its already strong renewables capacity.**

**Cybersecurity risks are high**, matched by strong policy dedication and institutional capacity.

Government action seeks to **expand domestic semiconductor capabilities** to reduce exposure to geopolitical headwinds.

## Key data

### Scale

450+ data centres

### Capacity

more than **1,600 MW** built-out total IT load

### Growth

**13% year on year** between 2023 and 2024

### Geographic hubs

London, with growth into Manchester, Birmingham, Leeds and other regions



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## Key legislation

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**1**

**Energy Security Strategy:** aims to boost domestic, clean and renewable energy sources like offshore wind, nuclear and hydrogen to increase energy security

**2**

**Net Zero Strategy:** outlines the nation's legally binding commitment to achieve net zero greenhouse gas emissions by 2050

**3**

**Energy Act 2023:** strengthens the UK's energy security, supports the transition to net zero and manages the regulation of the energy market. Includes heat network zoning that requires certain buildings to connect to local heat networks

**4**

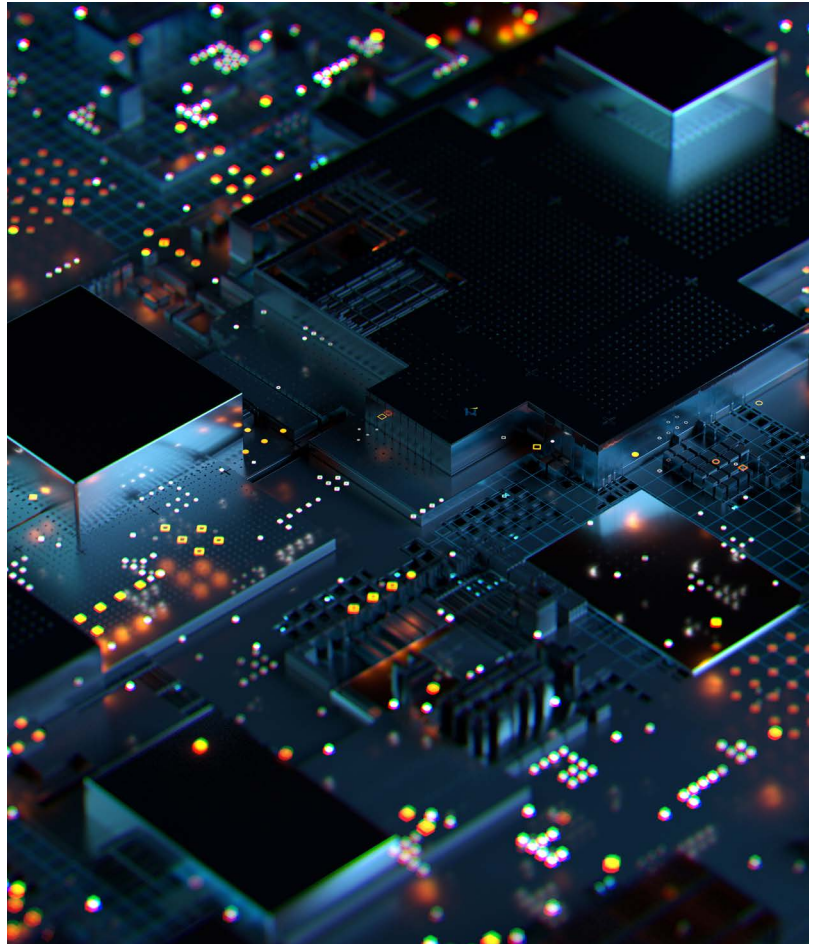
**National Quantum Strategy:** improves quantum science and engineering, supporting businesses to make the UK a hub for quantum innovation, and driving the adoption of quantum technologies across sectors

**5**

**National Semiconductor Strategy:** bolsters the UK's involvement in semiconductor technologies through research and design, intellectual property and compound semiconductors

## Market overview

The UK is home to more than 450 data centres and, with more than 1.6 GW of built-out information technology (IT) load capacity, hosts all major hyperscalers and leading co-location providers.<sup>1</sup> Most of the country's investment is concentrated in London. The sector is expected to grow at an average of 13% each year between 2024 and 2030, to reach US\$22.7bn.<sup>2</sup> Vacancy rates fell to just over 11% in 2024, which is higher than in most other European cities.<sup>3</sup>



<sup>1</sup> Data Center Map. Data Centers. Available at: <https://www.datacentermap.com/datacenters/>

<sup>2</sup> Global Newswire. UK Data Center Market Investment Report 2025-2030: Construction of AI-ready Data Centers is Increasing Significantly in the UK Data Center Market with Ample Growth in AI Workloads. February 13 2025. Available at: <https://www.globenewswire.com/news-release/2025/02/13/3026202/28124/en/UK-Data-Center-Market-Investment-Report-2025-2030-Construction-of-AI-ready-Data-Centers-is-Increasing-Significantly-in-the-UK-Data-Center-Market-with-Ample-Growth-in-AI-Workloads.html>

<sup>3</sup> CBRE. Global Data Center Trends 2025. June 24 2025. Available at: <https://www.cbre.com/insights/reports/global-data-center-trends-2025>

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## Investment landscape

Strong regional demand from increasing digitisation, cloud computing and the rise of generative artificial intelligence (AI) has led to **steady growth in the UK's data centre economy**. The largest cloud providers are clustered in West London. However, the industry's operational need for large land spaces, and heavy energy and water requirements are placing greater pressure on scarce resources, driving operators and cloud providers to locations where power is more abundantly available.<sup>4</sup>



<sup>4</sup> CBRE. Global Data Center Trends 2025. June 24 2025. Available at: <https://www.cbre.com/insights/reports/global-data-center-trends-2025>

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## Key Risks



### Physical

Electricity demand volatility during peak load periods is the UK's greatest risk. Data centres already consume roughly 2.5% of national electricity, a figure that could quadruple by 2030.<sup>5</sup> In 2024 roughly half of electricity generation came from renewables and another third from fossil fuels, mostly natural gas.<sup>6</sup> As policy continues to push a transition to greener infrastructure, clean power purchase agreements (PPAs) for data centres are becoming more common.

### Policy

The UK does not have any legislation mandating heat reuse in data centres, but the Energy Act 2023 introduced heat network zoning that requires certain buildings to connect to local heat networks.<sup>7</sup> Data centres are subject to the UK Climate Change Act, mandating carbon reporting and energy-efficiency audits.<sup>8</sup>

### Cybersecurity

Nearly half of UK businesses reported cyber breaches in 2024, a nearly 40% increase from 2022.<sup>9</sup> The UK's National Cyber Security Centre works closely with data centre operators, telecoms providers and cloud companies to mitigate cyber threats. And, in 2024, the government designated data centres as critical national infrastructure, giving centres access to essential government support to minimise the economic impacts of major incidents.<sup>10</sup>

### Geopolitical

Domestic demand for cutting-edge semiconductors outstrips supply, increasing exposure to global supply-chain disruptions. Government initiatives, including the National Semiconductor Strategy, seek to grow the domestic sector, mitigate supply risk and protect national security.<sup>11</sup>

<sup>5</sup> House of Commons Library. Data centres: planning policy, sustainability, and resilience. August 26 2025. Available at: <https://researchbriefings.files.parliament.uk/documents/CBP-10315/CBP-10315.pdf>

<sup>6</sup> Carbon Brief. Analysis: UK electricity from fossil fuels drops to lowest level since 1957. January 3 2024. Available at: <https://www.carbonbrief.org/analysis-uk-electricity-from-fossil-fuels-drops-to-lowest-level-since-1957/>

<sup>7</sup> Mitsubishi Electric. Data centres as the UK's new heat source. Available at: <https://es.mitsubishielectric.co.uk/the-hub/data-centres-as-the-uks-new-heat-source>

<sup>8</sup> UK Government. Climate change umbrella agreement for the data centre sector. Available at: <https://www.gov.uk/government/publications/climate-change-umbrella-agreement-for-the-data-centre-sector>

<sup>9</sup> Twenty four IT services. UK Cyber Crime Statistics 2025. Available at: <https://www.twenty-four.it/services/cyber-security-services/cyber-crime-prevention/cyber-crime-statistics-uk/>

<sup>10</sup> UK government. Data centres to be given massive boost and protections from cyber criminals and IT blackouts. September 12 2024. Available at: <https://www.gov.uk/government/news/data-centres-to-be-given-massive-boost-and-protections-from-cyber-criminals-and-it-blackouts>

<sup>11</sup> UK government. National semiconductor strategy. Available at: <https://www.gov.uk/government/publications/national-semiconductor-strategy/national-semiconductor-strategy>

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## Action Points for Leadership

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### Diversify geographically

Develop sites in regions with greater land and power availability, especially in the northern UK.

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### Accelerate sustainability

Implement robust, company-wide standards to accelerate renewable energy adoption and PPAs, water reuse and heat-recovery technologies, anticipating tightening national regulations.

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### Fortify cyber defences

Maintain proactive cybersecurity management, leveraging national support through data centres' status as critical infrastructure and continuous real-time threat monitoring.

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### Fortify cyber defences

Invest in more energy-efficient design to offset electricity demand volatility risks during peak load periods.

